

## Don't Weigh Me Down – Occupational Load Carriage in Tactical Environments

Orr, Rob Marc; Pope, Rodney R

*Licence:*  
CC BY-NC-ND

[Link to output in Bond University research repository.](#)

*Recommended citation(APA):*  
Orr, R. M., & Pope, R. R. (2017). *Don't Weigh Me Down – Occupational Load Carriage in Tactical Environments*. Abstract from APA National Physiotherapy Conference MOMENTUM 2017, Sydney, New South Wales, Australia.

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

For more information, or if you believe that this document breaches copyright, please contact the Bond University research repository coordinator.

# Don't Weigh Me Down – Occupational Load Carriage in Tactical Environments

Rodney Pope<sup>1,2</sup>, Robin Orr<sup>1,2</sup>

<sup>1</sup> Faculty of Health Sciences and Medicine, Bond University, Gold Coast, QLD, Australia,

<sup>2</sup> Tactical Research Unit, Bond University, Gold Coast, QLD, Australia,

**Aim:** To profile occupational loads carried by tactical personnel.

**Design:** A composite of four cross-sectional studies.

**Methods:** Data from four studies within tactical populations, being Australian Army soldiers, general and specialist police units and firefighters, were collated and synthesised. Data for soldiers were collected via detailed survey while the remaining three studies had participants weighed both with and without occupational loads.

**Results:** Australian Army soldiers (n=171) reported carrying loads of  $47.7 \pm 21.0$  kg, representing  $56 \pm 26\%$  of body weight, on combat operations. General police officers (n=98) were found to wear loads of around  $10.0 \pm 1.9$  kg, representing  $12 \pm 3\%$  body weight, with specialist officers (n=6) carrying loads of  $22.8 \pm 1.8$  kg or  $20.5\%$  ( $19.7\text{--}23.6\%$ ) body weight. Firefighters (n=15) carried loads of  $21.21 \pm 3.97$  kg or  $23 \pm 5\%$  body weight plus tool and hose loads. While all three populations carried the majority of these external loads on their trunk, there were notable differences in load placement around the body.

**Conclusion:** Tactical personnel are required to carry external loads while performing their daily occupational tasks with these loads known to cause injuries and increase the risk of slips, trips and falls. Once a load carriage injury has occurred soldiers are more likely to suffer further injuries whilst performing load carriage tasks.

**Key Practice Points:** Load carriage conditioning is a vital component of return to work reconditioning for tactical personnel. Failing to include this specific conditioning can increase the risk of future injuries and potentially endanger life.